

## Scaling the application of the Feed Assessment Tool (FEAST) to transform livestock feeding in farming communities

Photo credit: ILRI/Apollo Habtamu

### Context

Making quality feed sufficiently available to livestock is a major challenge that limits productivity and income from livestock in the smallholder sector. Previous attempts to address this challenge have often promoted inappropriate technologies that are rarely adopted by smallholder farmers, mainly because critical local factors such as availability of land, labour, water, capital and expert knowledge have received too little attention.

The Feed Assessment Tool (FEAST) is a data driven approach that provides detailed analysis on feeding constraints in real-time. It considers the local nature of adoption factors and helps farmers and extension services to identify livestock feed interventions that are suited to local conditions and needs. This approach offers solutions that deliver tailored, actionable and timely information to farmers and development actors, enabling them to adopt better livestock farming practices.

FEAST differs from conventional feed assessment approaches that focus on the feeds, their nutritive value, and ways to improve them. It broadens this assessment to account for the importance of livestock in local livelihoods, the relative importance of feed problems locally, and the local situation related to labour, input availability, credit, seasonality and markets.

The tool can be applied by researchers, extension workers, NGOs and private sector actors that are collaborating with local farming communities. It has been applied in more than a dozen countries across sub-Saharan Africa and South Asia.

### Objectives

The objectives of a project that implements FEAST at scale are:

1. To train trainers on how to use FEAST and capacitate them to transfer knowledge
2. To prioritize livestock feed interventions by using FEAST champions who have taken the training
3. To develop a livestock feed intervention action plan
4. To train local staff on selected feed interventions using practical methods

### Outputs

The outputs of a project that applies FEAST could include:

1. FEAST reports that summarize livestock feed issues in target sites generated by the FEAST application. The reports can be used to guide discussion on specific interventions and priorities.
2. A list of prioritized livestock feed interventions for target sites.
3. Action plans for rollout of prioritized feed interventions to be implemented by local partners.

## Beneficiaries and impact

Although FEAST requires some upfront effort, the process of applying the tool builds engagement of local extension and NGO staff with beneficiary farming communities and leads to a set of livestock feed interventions which are site appropriate and have the buy-in of local communities. The result is a much higher probability of success in livestock feed interventions.

Smallholder farmers in low- and middle-income countries derive a substantial proportion of their cash income from livestock. Recent estimates from the LiveGaps<sup>1</sup> project, funded by Bill and Melinda Gates Foundation, suggest that improved feeding of livestock could increase milk yields by 200–300%. In addition, livestock play an essential role in risk mitigation, diversification and adaptation to climate change. Furthermore, engagement in feed production, sale and processing offers multiple employment and income opportunities for micro, small and medium enterprises (MSMEs) for disadvantaged rural populations including youth and women.

The kind of improved feed production, resourcing and feeding interventions that emerge from FEAST could transform livestock production when properly applied.

<sup>1</sup> Mayberry, D., Andrew, A., Prestwidge, D., Godde, C., Henderson, B. et al. 2017. Use of a yield gaps analysis to identify opportunities to increase dairy and goat production in Ethiopia and India. *Agricultural Systems* 155: 43–51.

The FEAST suite of materials includes online learning materials that would allow application of FEAST to be quickly scaled out across setups such as an extension system. A training of trainers approach could be applied to rapidly build capacity of government and private extension workers to apply FEAST at scale. FEAST suggests solutions, and these solutions would need to be piloted in local communities by the extension system.

## Implementation

Our implementation strategy will involve conducting a pilot phase in the first year involving training of extension officers in the application of FEAST, followed by support in applying the tool and prioritizing interventions. Extension staff will draw up a list of prioritized feed interventions and training will be given in the application of the selected interventions. This will include practical field-based training in one of the global locations of the International Livestock Research Institute (ILRI).

Following successful roll out of prioritized feed interventions in the first year, the approach will be expanded as appropriate in subsequent years.

### ILRI's research for development agenda

During the past decade or so, the International Livestock Research Institute (ILRI) reoriented its research agenda with the overall goal of having more impact on internationally agreed targets and contributing to the Sustainable Development Goals (SDGs).

Rather than simply generating research findings and relying on other actors to use these, ILRI is now using theories of change and impact pathways to drive research agendas and engage with the relevant partners from the outset. This means ILRI's range of partners has widened from traditional research partners in national agricultural research and extension systems (NARES) and advanced research institutions around the world, to include actors from the development community—public, voluntary and private.

ILRI intends to accelerate efforts to improve its value proposition and product development research model and strengthen its ability to ensure research products result in impact and improve its overall efficiency and effectiveness. As part of these efforts, ILRI has created a dedicated “Impact at Scale” program responsible for ensuring technologies and solutions that ILRI (and others) have proven are taken to scale and incorporated into development projects.



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